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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/735,941	12/13/2000	Bruno Couillard	47-06 US	8092

7590 01/07/2005
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EXAMINER

SHEW, JOHN

ART UNIT	PAPER NUMBER
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2664

DATE MAILED: 01/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/735,941	Applicant(s) COUILLARD, BRUNO	
	Examiner John L Shew	Art Unit 2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on amendment of 12/14/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7-20,23,27,29 and 31-33 is/are allowed.
- 6) ☒ Claim(s) 25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02/23/2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garofalo (Patent No. 6633590), in view of Inukai (Patent No. 4602375).

Claim 25, Garofalo teaches a method of synchronizing a timing device coupled to a communications network (FIG. 2) referenced by clock H of satellite SAT, comprising the steps of a) sending a plurality of packets each packet being sent at a predetermined time from a first node to a second node via a communications network having unknown transmission time variation (FIG. 2, column 7 lines 14-16) referenced by ground station MS1 sending a TDMA burst to satellite SAT via communications link of unknown transmission time variation which requires transmission time corrections, b) receiving the plurality of packets at the second node (column 2 lines 24-31) referenced by reception of bursts by the remote system represented by the satellite, c) determining a

time indicative of a local time of receipt of each packet of the plurality of packets and providing time data in dependence thereon (FIG. 2, column 4 lines 62-67) referenced by satellite onboard module SMOD verifying the arrival time of the packet burst, d) returning the plurality of packets to the first node via the communications network (column 5 lines 14-19) referenced by ground terminal receiving a packet burst, e) determining a time indicative of a local time of receipt of each packet of the plurality of packets at the first node (column 6 lines 3-11) referenced by evaluation of propagation delay by the ground station which implicitly requires a local time of receipt, and f) determining data in dependence upon round trip delay of the packets and variance in packet spacing (column 4 lines 57-67, column 5 lines 1-10) referenced by using the packet propagation delay after a few iterative loops to determine transmission adjustment by shifting transmission of the packets with respect to the reference clock, and the data relating to an estimate of a minimum travel time of a packet between the first node and the second node (column 7 lines 20-31) referenced by the round trip time compensating the Doppler effect which relates to an estimate of the minimum travel time between the ground station and the satellite, via a communications network having unknown transmission time variations that are significant relative to the minimum travel time (column 7 lines 14-16) referenced by transmission time corrections which are variations of unknown transmission times, wherein the first node is a client station and the second node is a time server (FIG. 2, column 7 lines 40-53) referenced by MS1 and MS2 either of which can provide time server functions. Garofalo does not teach comparison to a threshold value.

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Inukai teaches receiving the signal comprising the data indicative of a time correction at the client station (FIG. 10, column 17 lines 16-28) referenced by the Clock Correction Data to the satellite client station, synchronizing the timing device of the client station in dependence upon the received signal (column 9 lines 3-7) referenced by the clock correction of communication satellite.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate threshold detection as taught by Inukai to the clock synchronization of Garofalo for the purpose of an improved clock correction technique.

Allowable Subject Matter

2. Claims 7-20, 23, 27, 29, 31-33 are allowed.

Response to Arguments

Applicant is silent as to the 35 USC § 112 first paragraph rejection of claims 1 and 21.

The rejection is withdrawn upon review of the disclosure regarding the limitation descriptors "relative to the predetermined temporal spacing" and "significant relative to the minimum travel time".

The limitation "dependence upon variance in temporal spacing of received packets relative to the predetermined temporal spacing" is described in Fig. 6 (page 10 paragraph [0040]) wherein the "predetermined temporal spacing" is the round trip variations in spacing between packets compared to the threshold values.

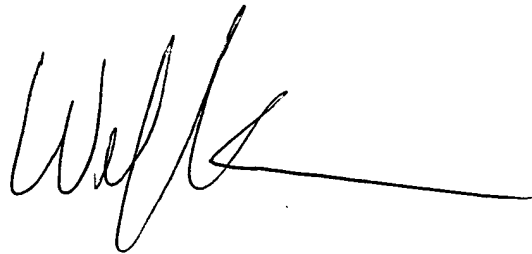
The limitation "unknown transmission time variations that are significant relative to the minimum travel time" is described in Figures 7e and 7f (page 12 paragraph [0049]) wherein the "significant relative to the minimum travel time" is the maximum of the third time difference adjustment to the half of the round trip delay value.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John L Shew whose telephone number is 571-272-3137. The examiner can normally be reached on 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 571-272-3134. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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